



1775 12<sup>th</sup> Ave NW Issaquah, WA 98027 PH: 425-837-3100 issaquahwa.gov

# Wireless Communication Facilities Construction Permit Submittal Requirements

The following items must be provided in order to properly apply for a building permit, including new construction and additions. Plans and application will not be reviewed if information is incomplete. The applicable department director may require additional information or materials when necessary to augment a permit application.

#### NOTE:

- 1. A Pre-Submittal Meeting may be required prior to a permit submittal. Please contact the Permit Center at 425-837-3100 for more information.
- 2. A shoreline permit is required if the structure will be located within 200 feet of Lake Sammamish, Issaquah Creek, or the East Fork of Issaquah Creek.

## **How to Apply**

- 1. Gather all documents as required by this submittal requirement packet
- 2. Save all documents in PDF format per the PDF File Format Requirements
- 3. Go to MyBuildingPermit.com to apply



## **Application Checklist**

The checklist below is an overview of the City's submittal requirements for all written documentation. For a comprehensive list of requirements, please review the remainder of this guide. Please note that permit applications missing one or more items listed are considered incomplete and will delay the permit review process.

✓ = Required • = If Applicable, contact the permit center for verification

| • - I | Requirea •   | – II Applicab | le, contact the permit center for verification   |  |  |
|-------|--------------|---------------|--|--|--|
|       | New          | Structure     |  |  |  |
| ✓     | Structure    | Addition      | Item   |  |  |
| Pre   | esubmittal F | Requiremen    | ts   |  |  |
|       | •            | •             | Current Franchise Agreement, if on City Right of Way   |  |  |
|       | •            | •             | Land Use Permit Approval, if the project qualifies as a Substantial Change   |  |  |
| Fo    | rms          |               |  |  |  |
|       |              | <b>~</b>      | Determination of Nonsubstantial Change to Eligible Support   |  |  |
|       | <b>✓</b>     |               | <b>Structure Form</b> , if the project qualifies as a Substantial Change a Land Use Permit shall be obtained before a Building Permit will be accepted by the City.              |  |  |
|       | •            | •             | Temporary Erosion and Sediment Control (TESC) Report form  |  |  |
| Su    | pporting Do  | ocuments      |  |  |  |
|       | •            | •             | Owner Authorization Letter from City of Issaquah Public Works<br>Engineering Department Providing Permission for Modifications, if<br>on Real Property owned by City of Issaquah |  |  |
|       | •            | •             | Geotechnical Design Report (See Soils Report Requirements handout)   |  |  |
|       | •            | •             | Copy of Recorded Easements   |  |  |
|       | ✓            | ✓             | <b>Structural Calculations</b> (gravity and lateral load calculations required – stamped by Professional Washington State Engineer)  |  |  |
| Pla   | ans and Drav | wings (For a  | applications submitted through MyBuildingPermit.com)   |  |  |
|       | ✓            | ✓             | All Plans must be in one pdf and comply with our PDF File Format Requirements  |  |  |
| Int   | ake Fee      |               |  |  |  |
|       | <b>✓</b>     | <b>✓</b>      | Plan check fee deposit required at time of submittal. (other permit fees will apply – see Permit Technician for more information) Based on project valuation.                    |  |  |

6/2/17 Page 2 of 9



## I. Plan Set Format Requirements

All drawings submitted shall conform to the following requirements:

- a. **Sheet size:** 18"x24" or 24"x36" or 30"x42"
- b. **Title Block:** Locate on right hand margin and provide:
  - Project name
  - Drawing title and drawing number
  - Revision block
  - Project address
  - Name and address of firm or contact responsible for the drawing
  - Washington State registered Architect / Engineering stamp and signature
- c. **Scale:** 
  - Unless site size dictates a different scale, site (civil) drawings: 1'=10'
  - Architectural plans: 1/4"=1'-0" unless impractical
- d. **Details:** All construction and structural details **must** be cross referenced and included in the full size plan set. Do not submit details in a separate document packet.
- e. Show North Arrow: All drawings must include a north arrow

| II. | Required | <b>Component Index</b> | (see section IV | for specific | requirements) |
|-----|----------|------------------------|-----------------|--------------|---------------|
|-----|----------|------------------------|-----------------|--------------|---------------|

| Cover Sheet                              |
|--|
| Site Plan - Architectural                |
| Civil Sheets                             |
| TESC Plan                                |
| Elevations                               |
| Foundation Plan                          |
| Architectural Cross Sections and Details |
| Structural Cross Sections and Details    |
| Structural Notes                         |
| Lateral (seismic) and Gravity Design     |
| Mechanical                               |

6/2/17 Page 3 of 9



## **III. Plan Set Components**

The information described under the drawing titles is a minimum requirement for building permit submittal.

### 1. Cover Sheet

- a. Site area in square feet and acres
- b. Vicinity Map
- c. **Site data Summary** (include required/allowed and proposed)
  - I. Area of proposed structure(s)

Gross

Net

- II. Total coverage of impervious surface (IMC 18.07.050)
- III. Tower Height
- d. List of all current applicable codes (see code page)

### 2. Site Plan

- a. **Property lines:** Show the location and dimensions. Please indicate point of beginning if the legal description is a metes and bounds description.
- b. **Adjacent right-of-way:** Locate and label the existing centerline, curb, sidewalk, and all proposed surface hardware. Distances to right-of-way centerline must be indicated. Indicate road type and design speed.
- c. **Streets and alleys:** Show location, name or number of all streets and alleys adjacent to the site. Show any off-site easements or private streets that provide access from the site to a public road.
- d. **Easements:** Show the location for all existing and proposed utility, open space, drainage, native growth protection, and access easements, and accurately dimension. Show all Tracts.
- e. **Existing and proposed structure:** Show location, overall dimensions and use of all existing and proposed buildings and structures on the site; show distances to property lines.
- f. **Setbacks** to property lines, including between buildings, architectural features and retaining walls.
- g. Indicate compact, full size, and accessible **parking** spaces. Show dimensions of all garages and indicate proposed tandem parking spaces. Indicate signage for compact and handicapped spaces. Indicate bike racks and loading spaces. Indicate overhangs.
- h. Clearly indicate demolitions and additions.
- i. **Indicate** location of mailboxes, utility vaults, hydrants, fire department connection, electrical equipment pads, flagpoles, all exposed HVAC equipment, and traffic signs.
- j. **Parking and circulation:** Locate and. dimension all entry drives. Show the proposed layout including parking stall angle, bay and aisle width, and provide typical dimensions for stall width and length to the wheel stop. Locate and dimension on-site loading areas.
- k. **Walls, rockeries and fences:** Indicate location, length and height. Provide section and elevation details for new construction. Indicate utility crossings.
- l. **Spot and topography elevations:** Show surface elevation at each corner of the site. For sites with slopes greater than 10%, show existing and proposed contours at 2' intervals. Indicate portions of sites with slopes greater than 15%. Locate temporary and permanent benchmarks.
- m. All plans must be printed in the same orientation that the structure(s) will be built. We do not accept plans that are reflected or mirrored images. This includes site plans, floor plans, elevation and structural drawings.

6/2/17 Page 4 of 9



## 3. Civil Grading Plan

Show existing contours as established by the topographical survey. Show proposed contours and clearly identify each. **Spot and topography elevations:** Show surface elevations for sites with slopes greater than 10%, show existing and proposed contours at 2' intervals. Indicate portions of sites with slopes greater than 15%. Locate temporary and permanent benchmarks.

- a. Distinguish between areas of 15% to 40% slopes and slopes of 40% and greater.
- b. Show location, buffers, and building setbacks of all critical areas on site and adjacent to the site.
- c. Location and type of all retaining walls and/or rockeries and details.
- d. Show limits of clearing and grading.
- e. Location of all significant trees (see definitions sheet). Identify trees to be removed and retained. Identify tree species and diameter (at breast height) for each retained tree.
- f. Show surveyed floodplains, surface waters and wetlands.
- g. Show excavation and fill quantities.
- h. Show location of all proposed structures and impervious surfaces.
- i. Provide typical curb and gutter section showing elevations and dimensions (Indicate location of all existing utilities and lines, including electrical, telephone, gas, water, sewer, cable TV, storm, and fiber optic cables, structures and easements. Show sizes and types.
- j. Plans shall be stamped and signed by a Washington State licensed civil engineer.

## 4. Civil Storm Drainage / TESC / Utilities Plans

Additional requirements may be found in the <u>TESC Report supplemental document</u>. Please include a copy of this supplemental document with your application submittal.

- a. Storm drainage plans and calculations in accordance with the City of Issaquah's Development Standards, edition current at the time of application for permits. Plans must be stamped and signed by a Washington State licensed civil engineer
- b. TESC Plan
- c. Surveyed location of all surface water features, floodplains, and/or wetlands
- d. Location of all contributing off-site drainage
- e. Location of existing storm drainage system
- f. Provide details of pollutant separation and treatment (oil/water separators, etc.)
- q. Location of proposed water and sewer service lines from mainline facility to building(s)
- h. Location of all proposed impervious surfaces
- i. Location of roof downspout connection to storm drain system

### 5. Elevations

- a. Show elevations of every side of the building; provide finished floor level for each floor; show proposed grades; show maximum building height; show maximum site slope.
- b. Roof: Show roof overhang clearances from roof. Indicate pitch of roof, or minimum slope to drain. Show mechanical equipment and its screening.
- c. Note class of roofing material.
- d. Note all ramps, signs, etc., for compliance with the Accessibility Code.
- e. Note materials as approved by the Development Commission (specific reference to manufacturer required). This requirement is not applicable to Issaquah Highlands.

6/2/17 Page 5 of 9



### 6. Foundation Plan

- a. Foundation wall: Show shape, all dimensions including maximum wall height(s), and all connections
- b. Provide foundation sections at various points around foundation system
- c. Foundation vent size, locations and calculations
- d. Footing drains & details per geotechnical report requirements
- e. All detail callouts must be accurately cross referenced to the appropriate location on the plans

### 7. Architectural Cross Sections and Details

- a. Show typical wall assemblies and ratings; call out all material types and thicknesses. Call out approval agency and listing number for rated assemblies.
- b. Show typical floor assemblies and ratings; call out material types and thicknesses. Call out approval agency for rated assemblies. (I.E., UL test number for particular 1-hour wall).
- c. Show protection for all penetrations (plumbing, electrical, communication) of assemblies. Show and detail all shaft construction.
  - Call out all door and window ratings, type of windows, and closure equipment. Indicate window U-values for Energy Code compliance.
- d. Show all vertical or horizontal occupancy separations and/or fire wall and fire barrier assemblies. Specify/show assembly components and construction.
- e. Show all details for compliance with the Accessibility Code.
- f. Show section and details of dumpster enclosure.

### 8. Structural Foundation Plan

- Accurately locate all columns, footings and grade beams. Indicate size and reinforcing of all members.
- b. Provide column connection detail. Indicate any framing anchors, welds, anchor bolts, grout, etc.
- c. Floor system: Show floor system structural size, spacing direction, support, connections, blocking, etc.
- d. All detail callouts must be accurately cross referenced to the appropriate location on the plans

## 9. Roof, Floor and Deck Framing Plans

- a. Roof, floor and deck structural system: Show size, spacing, direction, support, connections, blocking, etc.
- b. Bearing walls: Show all bearing walls and/or column beam support to footing.
- c. Show mechanical equipment location and its support system.
- d. All detail callouts must be accurately cross referenced to the appropriate location on the plans

### 10. Structural Cross Sections and Details

- a. Show typical wall section with all materials labeled, size and spacing of all members; include all dimensions, height, insulation, sheathing, connections, siding, etc.
- b. Show all lateral engineering details that specifically show complete load path through nailing for top plate, bottom plate, roof sheathing to wall, cantilevered floors, roof edge nailing, and interior shear walls. All details must be referenced on plan at all appropriate locations. Also include details and locations of hold down straps/anchors.

6/2/17 Page 6 of 9



- c. Show typical roof section with all materials labeled, size and spacing of all members; include all dimensions, venting, insulation, connections, sheathing, type of roofing, slope of roof. Show scupper, overflow and downspout details. Note that many of these details are typically included in architectural detailing and need not be duplicated in structural drawings.
- d. Show typical foundation section with all materials labeled, size and spacing of all members, all dimensions; include: wall thickness, rebar size and spacing, rebar clearance, footing depth below grade, clearance between grade and sill plate, maximum wall height, connections, anchor bolt size and spacing, connection between floor diaphragm and foundations, slab thickness, drainage for foundation retaining wall.

### 11. Structural Notes

- a. Specify all design loads and include: live (including floor, stairs, etc.), dead (including mechanical equipment, materials, etc.), wind, earthquake, snow, equivalent fluid pressure, soil bearing, etc.
- b. Specify minimum design concrete strength, concrete sack mix, and reinforcing bar grade.
- c. Specify the grade and species of all framing lumber.
- d. Specify the combination symbol (strength) of all GLU-LAM beams.
- e. Specify metal connectors, including joist hangers, clips, post caps, post bases, etc.

## 12. Lateral (Seismic) and Gravity Design

- a. Provide lateral Wind and Seismic calculation comparison.
- b. Provide complete lateral calculation analysis for controlling wind or seismic load.
- c. Provide details showing complete load path transfer at roof perimeter, interior shear walls, cantilevered floors, offset shear walls, and ceiling diaphragm to shear walls (if used).
- d. Engineer's stamp required on drawing and calculations.
- e. Provide shear wall schedule noting nail spacing, blocking, bolts, top and bottom plate nailing.
- f. Locate hold down straps on plan.
- g. Provide hold down details for various conditions.
- h. All structural calculations for gravity and lateral design must include a key plan or similar way of identifying beams, headers, girder trusses and shear walls noted in the calculations with those indicated on plan. Plans submitted that do not identify and coordinate this information with calculations will be considered insufficient and not accepted for permit submittal.

### 13. Mechanical

Mechanical plans must be submitted with all applications and may not be a deferred submittal.

### Required information:

Plans that do not contain the following minimum information will not be accepted for plan check. Plans shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show that it will conform to the provisions of the adopted Codes and ordinances including the International Mechanical and Fuel Gas Codes with WA State Amendments.

Plans must note the construction type of the building and show all fire-rated construction.

### **Equipment Schedules Provide manufacturer's product data sheets**

1. Provide complete equipment schedules for cooling and heating equipment on drawings. Specify the quantity, manufacturer, model, number, capacities (input and output), SEER/EER, efficiency, cfm and operating weight of all equipment. Specify OSA capacities. Include economizers on equipment schedules.

6/2/17 Page 7 of 9



- 2. Fan schedule should specify manufacturer, model number, cfm, static pressure, HP/ BHP, and flow control types (VAV, constant volume, or variable speed).
- 3. A brief description of equipment operations and controls, show location and size of combustion air sources for fuel burning appliances.

### **Structural**

- 1. Provide framing plans and calculations, for vertical and lateral loads, stamped by a Washington State registered professional engineer for units weighing more than 400 pounds.
- 2. Roof curb designs must be provided for all roof mounted mechanical equipment. If factory curbs will be used, provide details. Specify the type, amount, and location of fasteners.
- 3. All floor supported mechanical equipment and fixed appliances must be anchored to the structure to resist displacement vertically and on both horizontal axis due to seismic motion. Specify anchorage for floor supported equipment on plans.
- 4. Suspended mechanical equipment and appliances shall have rigid vertical hangers and be braced in both horizontal directions. Connections by pipes or ducts that are or contain non-rigid elements are not of inherent sufficient strength, or which are not adequately anchored will not be acceptable as equipment or appliance anchors. Detail anchorage for suspended equipment on drawings.

### Make-Up Air

- Ventilation air supply shall be sufficient to provide make-up air for exhaust systems when required by the IMC or IFGC. Make-up air systems shall be electrically interlocked with their associated exhaust systems. IMC 508.1
- 2. Ducts in ventilation supply air systems shall be sized as required by the equipment manufacturer's approved installation instructions or approved good engineering practice. IMC Sec. 403.3
- 3. Provide calculations showing compliance with the ventilation requirements of the 2003 Washington State Ventilation and Indoor Air Quality Code (51-13 WAC). The mechanical ventilation system shall be capable of supplying ventilation air to each zone with the minimum outdoor air quantities specified in WSVIAQ Table 3-4.

### **Ducts IMC Chapter 6**

Show locations of all heating, cooling and ventilating equipment.

- 1. Show duct layouts include size, duct gage (if metal) and register locations and specify cfm ratings. Show materials, spacing, and size of supports for all ducts as set forth in IMC Table 603.10.
- 2. Indicate the R-value of duct insulation to comply with WSEC Table 14-5.
- 3. Either architectural plans that specify the use and dimensions of all rooms and show the fire-rated corridors, walls, ceilings and/or floors should be submitted or the mechanical plans should show that same information.

### **Smoke Detection and Dampers**

Smoke Detection and Dampers shall be shown to comply with recognized standards (Fire Dampers UL 555, Ceiling Dampers 555C).

6/2/17 Page 8 of 9



- 1. Air-moving systems supplying air in excess of 2,000 cubic feet per minute to enclosed spaces within buildings shall be equipped with an automatic shutoff. Automatic shutoff shall be accomplished by interrupting the power source of the air-moving equipment upon detection of smoke in the main return-air duct served by such equipment. Smoke detectors shall be labeled by an approved agency for air-duct installation and shall be installed in accordance with the manufacturer's installation instructions. Such devices shall be compatible with the operating velocities, pressures, and temperatures of the system. Where fire detection or alarm systems are provided for the building, the smoke detectors required by this section shall be supervised by such systems. IMC 606.2
- 2. Ceiling dampers shall be installed in the fire-resistive ceiling elements of floor-ceiling and roof-ceiling assemblies. Fire dampers not meeting the temperature limitation of ceiling dampers shall not be used as substitutes.
- 3. Provide details to show that the ductwork will be connected to damper sleeves or assemblies in such a way that collapse of ductwork will not dislodge the damper. IMC Sec. 607.2, manufacturer's installation instructions, and IBC Sec. 712.2
- 4. Indicate on plans that fire dampers will be equipped with access doors, with a label reading "FIRE DAMPER," as required by IMC 607.4.

#### General

- 1. Separate temperature controls shall be provided for each zone and shall be shown on plans. When used to control both heating and cooling, thermostatic controls shall be capable of a deadband of at least 5°F. WSEC 1412.2.
- All mechanical equipment should be listed and labeled by an approved testing agency. If not, complete information on the equipment, including manufacturers' data sheets, test reports, etc., should be provided to allow for evaluation. Testing by an approved testing laboratory may be required before final approval is granted.
- 3. Show required access for roof mounted equipment per IMC Sec. 306.5.
- 4. A 120-volt receptacle shall be shown within 25' of each piece of equipment. ICC Electrical Code.
- 5. Specify that an accessible gas shut-off valve will be installed within 6' of all gas appliances. International Fuel Gas Code Sec 409.5.

6/2/17 Page 9 of 9